論文發表注意事項

【口頭論文發表】

- 試片室：7 樓 701C 會議室及 701G 會議室外小房間
- 口頭報告者請務必於該場次開始前 30 分鐘將隨身碟自行攜帶送至試片室進行測試，以避免中途影響會議速度進行，請先行測試檔案與隨身碟讀取正常。
- 一般論文口頭發表，每題 12 分鐘(報告 10 分鐘，討論 2 分鐘)，請各演講者務必控制報告時間，演講時間結束後即開燈結束演講。
- 學會於90年新增『年會論文優秀論文獎』，口頭發表及壁報發表分別評分。優秀論文獎得獎名單於會員大會公佈並頒獎。
- 得獎公佈—會員大會
  時間：112 年 12 月 10 日(星期日)上午 11:30 至 12:00 (請得獎者務必在現場)
  地點：701B會議室

- Our Preview Room are located outside of conference rooms 701B and 701F
- ***Oral Presentation***

Presentation Time
12 Minutes: including 10 minutes of presentation and 2 minutes of Live Q&A
Presentation Specification
***All oral presentation must Present LIVE.** File Type: **PPT or PPTX** only File Name: Oral_AbstractID_Name (e.g: OralPresentation1_25_Lin)

Oral Presentation 10 (Chinese)

December 9 (Saturday), 2023 12:00 ~ 13:15 Room 6 (703)

【Clinical-8】 *Chair(s)：賴俊夫/ Chun-Fu Lai、楊如燁/ Ju-Yeh Yang*

12:00—12:12

3. Urine sCD163/Creatinine Ratio Is a Potential Biomarker of Disease Severity in Patients with IgA Nephropathy
Li-Yi Ma[1], Ji-Tseng Fang[1], Yi-Ran Tu[1], Tsai-Yi Wu[2], Yung-Chang Chen[1], Kun-Hua Tu[1]
[1] Division of Nephrology, Linkou Chang Gung Memorial Hospital; [2] Chang Gung University

12:12—12:24

4. Clinical outcome and safety of Sodium-Glucose Transport Protein 2 inhibitor (SGLT2i) in kidney transplant recipients
Bang-Hao Chiou[1], Sheng-Wen Wu[1,2]
[1] Division of Nephrology, Department of Internal Medicine, Chung Shan Medical University Hospital, Taichung, Taiwan.
[2] School of Medicine, Chung Shan Medical University, Taichung, Taiwan

12:24—12:36

5. Assessment of the Herpes Zoster Risk Among Renal Transplant Recipients Administered the Influenza Vaccine
Tzu Ming Cheng[1], Jin-Shuen Chen[13], Hua-Chang Fang[12], Kang-Ju Chou[12], Po-Tsang Lee[12], Chih-Yang Hsu[12], Chien-Wei Huang[12], Hsin-Yu Chen[12], Chien-Liang Chen[12]
[1] Division of Nephrology, Department of Medicine, Kaohsiung Veterans General Hospital, Kaohsiung, [2] School of Medicine, National Yang Ming Chiao Tung University, Taipei,

12:36—12:48

6. Neonatal Hypocalcemia and Maternal Hypercalcemia: Exploring the Potential Connection to Parathyroid Adenoma and CaSR Mutations
Jhao-Jhuang Ding[1], Shih-Hua Lin[2], Min-Hua Tseng[3]
[1]Department of Pediatrics, Tri-Service General Hospital; [2]Division of Nephrology, Department of Internal Medicine, Tri-Service General Hospital; [3]Division of Nephrology, Department of Pediatrics, Chang Gung Memorial Hospital

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【Oral Presentation 10】 Room 6 (703)

Urine sCD163/Creatinine Ratio Is a Potential Biomarker of Disease Severity in Patients with IgA Nephropathy

尿液中的sCD163/肌酸酐比值是IgA腎病變患者疾病嚴重程度的潛在生物標記

Li-Yi Ma[1], Ji-Tseng Fang[1], Yi-Ran Tu[1], Tsai-Yi Wu[2], Yung-Chang Chen[1], Kun-Hua Tu[1]

馬立宜[1], 方基存[1], 塗貽然[1], 吳采蓳[2], 陳永昌[1], 塗昆樺[1]

[1] Division of Nephrology, Linkou Chang Gung Memorial Hospital; [2] Chang Gung University

[1] 林口長庚醫院腎臟科, [2] 長庚大學

Background：

IgA nephropathy (IgAN) is the most common glomerular disease in adults. There are several prediction models postulated for IgAN but no one could be validated successfully. In addition, there is no biomarker proved to predict severity and survival for patients with IgA nephropathy. Recently, one urinary metabolite from macrophage, soluble CD163 (usCD163) was found remarkably elevated in patients with IgA nephropathy. Gong et al demonstrated urine sCD163/creatinine (usCD163/Cr) ratio seems correlated to disease severity of IgA nephropathy. Thus, we conducted a prospective study to elucidate the role of urine sCD163/creatinine ratio in IgA nephropathy.

Methods：

We initiated a prospective cohort of glomerular disease at a tertiary medical center in Taiwan. Mid-stream spot urine sample was prospectively obtained before renal biopsy. During the study period, there are 150 subjects with pathologic diagnosis of IgA nephropathy. After exclusion as criteria, there are totally 70 subjects believed as primary IgA nephropathy was studied. Pre-stored urine samples were used to check the levels of soluble CD163 and creatinine.

Results：

The levels of usCD163/Cr ratio could be divided into 3 tertiles. Between these tertiles, there are no remarkable differences in serum creatinine and GFR. Greater tertiles of usCD163/Cr ratio have greater severity of hypoalbuminemia, proteinuria, hypercholesterolemia, and hypertension. Greater tertiles of usCD163/Cr ratio have also more obsoleted glomeruli, greater severity of tubulointerstitial fibrosis, and more crescents formation. ≥ 50% decline of estimated glomerular filtration rate (eGFR) and entering dialysis during study period didn't achieve statistical difference between 3 tertiles of usCD163/Cr ratio. Survival analysis toward ≥ 50% eGFR decline and entering dialysis, however, revealed lower survival probability in tertile 3 compared to tertile 1+2.

Conclusions：

Urine sCD163/creatinine ratio seems correlated to proteinuria and the symptoms associated with nephrosis. It also correlated to histologic injury of glomerular sclerosis and tubulointerstitial fibrosis. Although there are no statistical significances of ≥ 50% eGFR decline and entering dialysis between these tertiles, survival analysis proved that lower survival probability in tertile 3 compared to tertile 1+2.

Key words：

Biomarker, IgA nephropathy, urinary soluble CD163, urine sCD163/creatinine ratio

4

Clinical outcome and safety of Sodium-Glucose Transport Protein 2 inhibitor (SGLT2i) in kidney transplant recipients

Bang-Hao Chiou[1], Sheng-Wen Wu[1,2]

[1] Division of Nephrology, Department of Internal Medicine, Chung Shan Medical University Hospital, Taichung, Taiwan.

[2] School of Medicine, Chung Shan Medical University, Taichung, Taiwan.

Background:

Sodium-glucose cotransporter-2 inhibitors (SGLT2i) have shown to improve cardiorenal outcome in both diabetic and non-diabetic population. However, previous studies had excluded kidney transplant recipient (KTR) population for safety concerns. Therefore, we aim to investigate the renal outcomes and safety of KTR receiving SGLT2i in a single medical center in Taichung, Taiwan.

Methods:

We retrospectively collected data from January, 2016 to September, 2023, of adult KTR (patient above 18 years old) with diabetes mellitus receiving SGLT2i treatment after transplantation. Inclusion criteria included stable GFR level in recent 1 year (with eGFR level>30), and usage of SGLT2i more than 1 year with continuation till the end of the analysis. We review patient's consecutive (initial, 6 months, 1 year, and most recent record) eGFR level and UACR before and after medication use, and medical records of relevant adverse events.

Results:

After screening 194 KTR ever using SGLT2i, a total of 82 patients were enrolled in this study. Participants were male in predominance (57, 69.5%), and mean(±SD) age was 63.8(±10.3) years old. 45(54%) patients had additional OAD usage and 8(9.2%) had combined insulin for blood sugar control. Initial median eGFR was 69.8, and renal function remain stable in subsequent follow-up course. Fifteen (18%) of the 82 patients had urinary tract infection and 5(6%) of whom were hospitalized due to urinary tract infection. Neither diabetic ketone acidosis nor amputation were noted.

Conclusion:

SGLT2i seems to be efficacious and well tolerated in the KTR. Patient should be carefully monitored and educated to avoid the occurrence of urinary tract infection.

5

Assessment of the Herpes Zoster Risk Among Renal Transplant Recipients Administered the Influenza Vaccine

腎移植受者接種流感疫苗後發生帶狀疱疹之風險評估

Tzu Ming Cheng[1], Jin-Shuen Chen[13], Hua-Chang Fang[12], Kang-Ju Chou[12], Po-Tsang Lee[12], Chih-Yang Hsu[12], Chien-Wei Huang[12], Hsin-Yu Chen[12], Chien-Liang Chen[12]

鄭子明[1], 陳金順[13], 方華章[12], 周康茹[12],李柏蒼[12], 許智揚[12], 黃建維[12], 陳信佑[12], 陳建良[12]

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Background：

Reactivation of the latent varicella-zoster virus can cause herpes zoster (HZ) infection, and renal transplant recipients undergoing immunosuppressive therapy are particularly susceptible to this condition. Previous research has indicated a slight increase in risk of HZ in people receiving influenza vaccine. This phenomenon may hold significance for renal transplant recipients. This study aims to evaluate the potential increase in HZ incidence following influenza vaccination among this specific patient population.

Methods：

This study was a population-based, retrospective, self-controlled case series. Data were retrieved from Taiwan's National Health Insurance Research Database spanning the years 2008 to 2017. Patients diagnosed with HZ within a 6-month period before and after receiving the influenza vaccine were eligible for inclusion. Two distinct time intervals were defined for analysis: the initial 15 days and 30 days following vaccination were categorized as risk intervals, while all other periods served as control intervals. Incidence rate ratios (IRRs) were computed to compare HZ incidence during the risk intervals with that during the control intervals.

Results：

This study encompassed a cohort of 4,222 renal transplant recipients who had received the influenza vaccine. Among this group, 67 recipients were subsequently diagnosed with HZ. The IRR during both the initial 15 days (IRR = 0.63; 95% CI, 0.23–1.89) and the first 30 days (IRR = 1.50; 95% CI, 0.71–3.16) following influenza vaccination did not demonstrate a statistically significant increase when compared to the post-exposure observation times. Comparable results were also observed when comparing these IRR values to the pre-exposure observation times. The subgroup analysis, stratified by age, sex, and underlying medical conditions (including cancer and autoimmune diseases), revealed that the IRRs did not exhibit statistically significant differences.

Conclusions：

No significant association between the influenza vaccine and an elevated risk of HZ was detected. The administration of annual influenza vaccines appears to be a safe practice for renal transplant recipients.

Key words： chicken pox; herpes zoster; influenza vaccine; renal transplant; varicella-zoster virus

6

Neonatal Hypocalcemia and Maternal Hypercalcemia: Exploring the Potential Connection to Parathyroid Adenoma and CaSR Mutations

新生兒低血鈣和母親高血鈣：探討與副甲狀腺腺瘤和 CaSR 突變的潛在關聯

Jhao-Jhuang Ding[1], Shih-Hua Lin[2], Min-Hua Tseng[3]

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Background：

Late-onset (≥3 days) neonatal hypocalcemia can lead to serious complications, including seizures and tetany, and may provide cluse to uncovering maternal hypercalcemia.

Methods：

Neonates presenting with late-onset hypocalcemic tetany or seizures, hyperphosphatemia, and inappropriately low or normal iPTH levels, suggestive of hypoparathyroidism, were prospectively enrolled. Hypomagnesemia, high phosphate intake, and kidney function impairment were excluded. All mothers were also evaluated for potential causes of neonatal hypocalcemia.

Results：

Seven full-term newborns and their mothers were enrolled. All newborns were diagnosed with transient hypoparathyroidism secondary to maternal hypercalcemia. To investigate the cause of maternal hypercalcemia, maternal serum calcium, phosphorus, iPTH levels, as well as parathyroid scans, were assessed. Six mothers were found to have parathyroid adenoma, and one was confirmed to have a CaSR loss-of-function genetic mutation.

All newborns were treated with oral calcium gluconate combined with either cholecalciferol or calcitriol. After approximately one month of treatment, serum calcium and phosphate levels normalized. Following parathyroidectomy in mothers with parathyroid adenoma, serum calcium levels normalized. The mother with the CaSR loss-of-function mutation exhibited persistent high serum calcium and iPTH levels.

Conclusions：

This study underscores the importance of evaluating maternal calcium homeostasis in instances of neonatal hypocalcemia and highlights a potential genetic association between neonatal symptoms and maternal CaSR mutations. Further research is warranted to understand the genetic basis and optimize management strategies for both conditions.

Key words：

Neonatal hypocalcemia; maternal hypercalcemia, CaSR mutation, parathyroid adenoma